ABSTRACT

The invention basically comprises the addition of a small amount of nanometer sized carbon tubes or fibres grown by high temperature vapour deposition to a meso-phase graphite mixture used for a negative electrode (anode) for a lithium battery. These are referred to herein as "carbon nano-fibres". According to one embodiment of the present invention, in an anode for a lithium battery having a conductive substrate coated with a pressed compact of spherical graphite and an ion-conducting polymeric binder, an amount of from 1.5 to 15% by weight of carbon nano-fibres is added. The carbon nano-fibres may have an average diameter of around 0.2mm (200 x 10-9m) a length of from 10 to 20mm and an inner core diameter of from 65-70nm. The spherical graphite may be meso-phase graphite and more preferably, the carbon nano-fibres are included in amount of from 2 to 9% by weight.